

The Claims

1. (Currently amended) One or more computer-readable media comprising computer-executable instructions that, when executed, direct a processor to perform acts comprising:

identifying a custom field on a source code form definition and one or more restrictions on an input to the custom field;

identifying validation code that, when executed, validates that the input conforms to the one or more restrictions; and

adding, to a new form definition that includes a non-custom field corresponding to the custom field, the identified validation code.

2. (Currently amended) One or more computer-readable media as recited in claim 1, wherein the computer-executable instructions further direct the processor to perform acts comprising:

adding, to the new form definition, a reference to the identified validation code ~~in the form~~ that, when executed by another processor, causes the other processor to execute the identified validation code.

3. (Original) One or more computer-readable media as recited in claim 1, wherein the identifying validation code comprises identifying pre-defined validation code.

4. (Currently amended) One or more computer-readable media as recited in claim 1, wherein the source code form definition that defines the field includes a tag corresponding to the custom field.

5. (Original) One or more computer-readable media as recited in claim 1, wherein the input comprises a user input.

6. (Currently amended) One or more computer-readable media as recited in claim 1, wherein the identifying validation code comprises:

identifying a custom tag corresponding to the custom field, wherein the custom tag includes an indication of one or more attributes, and wherein each of the one or more attributes includes a value indicating what input corresponding to the non-custom field is to be restricted to; and

identifying, from a plurality of pieces of validation code, the validation code corresponding to the one or more attributes of the custom tag.

7-18. (Canceled).

19. (Currently amended) A computerized method comprising:

identifying, from an input form definition written in a source code, one or more desired fields to be included on a form via which data can be input; and

automatically adding validation code to source code of the form, wherein the validation code is based at least in part on the one or more desired fields and one or more desired input restrictions associated with the one or more desired fields.

20. (Original) A method as recited in claim 19, wherein the identifying comprises identifying a custom tag corresponding to each of the one or more desired fields, wherein each custom tag has one or more validation attributes, and wherein each validation attribute includes an indication of the attribute and a corresponding value that input corresponding to the custom tag is to be restricted to.

21. (Original) A method as recited in claim 19, wherein the input comprises a user input.

22. (Original) A method as recited in claim 19, wherein the automatically adding comprises:

- generating a temporary form definition;
- adding execution code to the temporary form definition;
- executing the execution code to add the validation code to the temporary form definition; and
- outputting, as the source code, the temporary form definition.

23. (Currently amended) A system comprising:

- a form analyzer configured to identify one or more custom tags in a source code form definition associated with a form; and

- a tag replacement module, coupled to the form analyzer, configured to replace each of the one or more custom tags with another tag, and further to add, to a form definition, for each of the one or more custom tags, validation code to validate subsequent inputs to a field corresponding to the tag.

24. (Original) A system as recited in claim 23, wherein the inputs comprise user inputs.

25. (Original) A system as recited in claim 23, wherein the system comprises a compiler.

26. (Original) A system as recited in claim 23, wherein each of the other tags with which the tag replacement module replaces a custom tag is a HyperText Markup Language (HTML) tag.

27. (Original) A system as recited in claim 23, wherein the tag replacement module is further configured to add a reference to the added validation code.

28. (Currently amended) A system as recited in claim 23, wherein the tag replacement module is further configured to generate a new document corresponding to the form definition page, to replace each of the one or more custom tags with another tag by adding the other tag to the new document, and to add validation code by adding the validation code to the new document.

29. (Original) A system as recited in claim 23, wherein a plurality of the one or more custom tags have restrictions corresponding to the same validation code, and wherein the tag replacement module is further configured to add the same validation code only once.

30. (Original) A system as recited in claim 23, further comprising a tag library, coupled to the tag replacement module, to store the validation code.

31. (Original) A system as recited in claim 30, wherein the tag library is further to store an identification of the one or more custom tags.

32. (Currently amended) A method comprising:
receiving a form definition including one or more custom tags, wherein each custom tag corresponds to a data input, and wherein each custom tag includes has one or more associated input restrictions; and
for each of the one or more custom tags,
identifying a replacement non-custom tag,
adding the identified replacement non-custom tag to a new form definition,

identifying validation code that, when executed based on an input corresponding to the tag, validates whether the associated input restrictions are satisfied, and

adding the identified validation code to the new form definition.

33. (Original) A method as recited in claim 32, wherein the method further comprises, for each of the one or more custom tags:

adding, to the new form definition, a reference to invoke the added validation code.

34. (Original) A method as recited in claim 32, wherein the receiving further comprises receiving, as part of the form definition, one or more non-custom tags, and wherein the method further comprises adding each of the non-custom tags to the new form definition.

35. (Original) A method as recited in claim 32, wherein the data input comprises data input by a user.

36. (Original) A method as recited in claim 32, wherein each input custom tag includes one or more attributes that identify the one or more associated input restrictions, and wherein each of the one or more attributes includes an indication of the attribute and a corresponding value that data input corresponding to the tag is to be restricted to.

37. (Original) A method as recited in claim 32, wherein adding the identified validation code comprises:

adding execution code to the new form definition; and

executing the execution code to add the identified validation code to the new form definition.

38. (Original) A data structure comprising:
a first portion identifying an input field for a form; and
a second portion identifying one or more restrictions on inputs to the input field, and further identifying validation code to be added to a page to enforce the one or more restrictions on inputs to the input field.

39. (Original) A data structure as recited in claim 38, wherein the data structure comprises a text markup language document.

40. (Original) A data structure as recited in claim 38, wherein the first portion further identifies a type of the input field.

41. (Original) A data structure as recited in claim 38, wherein the second portion comprises a set of one or more attributes and, for each attribute, an associated value for the attribute.

42. (Original) A data structure as recited in claim 38, wherein the input field is for user-input of data.

43. (New) One or more computer-readable media as recited in claim 1, wherein the computer-executable instructions further direct the processor to perform acts comprising:

identifying, on the source code form definition, one or more restrictions for the custom field; and

using, in identifying the validation code, the one or more restrictions.